

Attorney Docket No.: 01CON260P  
Application Serial No.: 10/008,925

**In the Specification:**

- Please amend the paragraph starting on page 26, line 7, as follows:

If PIAFS 32K is not detected at step 557, then auto detection 500 continues to step 563 where the processor analyzes the buffered data at specific bit positions directed to a 64K connection and compares the bit pattern resulting from extracting those specified bits with the PIAFS\_SYNC\_WORD pattern. If a match is found between the two patterns, then auto detection method 500 proceeds to step ~~556~~ 565 where the processor configures the modem port to connect in PIAFS 64K. Auto detection method 500 then ends at step 567.

- Please amend the paragraph starting on page 22, line 6, as follows:

Once the data has been buffered at step 516, auto detection method 500 proceeds to step ~~318~~ 518 where the processor analyzes the buffered data to determine whether the terminal equipment is using a V.110 8K sync frame format. As discussed above, in one embodiment, V.110 8K can be detected by discovery of eight consecutive 0x7F bytes. In another embodiment, however, V.110 8K can be detected by analyzing specific bits of the buffered data directed to an 8K connection, ANDing the specified combination of bits with a pre-determined bit pattern, and comparing the bit pattern yielded by the AND operation to a test pattern to determine whether the underlying protocol is V.110 8K (see FIG. 4). If it is determined at step 518 that the terminal equipment is using the V.110 8K, then auto detection method 500 proceeds to step 526. Otherwise, auto detection method 500 continues to step 520 where the processor analyzes the buffered data to determine whether the terminal equipment is using V.110 16K. For example, in one embodiment, the processor can search the buffered data for four consecutive 0x3F bytes to

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determine the underlying protocol to be V.110 16K. Alternatively, the processor can look at specific bit positions of the buffered data directed to a 16K connection, ANDing the bit pattern resulting from combining those specific bit positions with a predetermined bit pattern, and comparing the bit pattern yielded by the AND operation to a test bit pattern to determine whether the underlying protocol is V.110 16K (see FIG. 4). If the processor determines at step 320 520 that the terminal equipment is using V.110 16K, then the process proceeds to step 326 526.

- Please amend the paragraph starting on page 8, line 23, as follows:

FIG. 1 illustrates exemplary communication system 100 according to one embodiment of the invention, in which embodiment central site modem 128 automatically determines, i.e. “auto detects”, the specific connection protocol utilized by end-users connecting to Internet service provider (“ISP”) 126 and dynamically configures receiving modem port 130 to answer the calls in the correct mode. As shown in FIG. 1, communication system 100 comprises terminal equipment 102, 110 and 114 connected to ISP 126 via public switch telephone network (“PSTN”) 122 and central office (“CO”) 124. For example, if an end-user originates a call from terminal equipment 102 to ISP 126, the call is routed through PSTN 122 to CO 124, which is a local central office for ISP 126. CO 124 then routes the call to ISP 126, where central site modem 140 128 can receive and process the call.

- Please amend the paragraph starting on page 14, line 18, as follows:

Continuing with FIG. 3, ISP 326 includes central site modem 328, which comprises modem port 330 and auto detector 340. Calls arriving at ISP 326 from CO 324 can be routed to

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modem port ~~332~~ 330. In the present embodiment, modem port 330 is a universal port which can be configured to answer calls from terminal equipment in any of a number of protocols including, for example, V.110, PIASF, V.120, sync-HDLC or analog mode. Auto detector 340 comprises buffer 342, processor 344, digital timer 346 and PTsync timer 348.

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**In the Title:**

- Please amend the title of the present application, as follows:

AUTO DETECTION METHOD AND SYSTEM FOR UNIVERSAL MATCHING A  
COMMUNICATION PROTOCOL OF A CALLING MODEM WITH A COMMUNICATION  
PROTOCOL OF AN ANSWERING MODEM PORTS